908-429-3650

## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

(amended) A polymer comprising at least one repeating unit represented by formula

where  $R_1$ ,  $R_2$ , and  $R_3$  are each independently selected from hydrogen or alkyl,  $R_{20}$ ,  $R_{22}$ ,  $R_{24}$ ,  $R_{26}$ ,  $R_{28}$ , and  $R_{30}$  are independently selected from hydrogen, alkyl, aryl, aralkyl, or 5-, 6-, or 7-membered heterocyclic ring containing at least one heteroatom selected from nitrogen, oxygen or sulfur, or  $R_{24}$  and  $R_{26}$  taken together (i) form a direct bend, (ii) form  $-(CH_2)_{n1}(O)_{n2}(CH_2)_{n3}$ — where n2 is 0 or 1 and n1+n2+n3 = 1 to 5, or (iii) with the carbon atoms to which they are attached form a carbocyclic ring and  $R_{20}$ ,  $R_{22}$ ,  $R_{28}$  and  $R_{30}$  are as defined above;  $R_{32}$ ,  $R_{34}$ , and  $R_{36}$  are independently selected from hydrogen, alkyl, aryl, aralkyl, or 5-, 6-, or 7-membered heterocyclic ring containing at least one heteroatom

selected from nitrogen, oxygen or sulfur; and Y is selected from linear or branched alkylene, monocyclic or polycyclic alkylene, aralkylene, polyoxyalkylene, linear or branched alkenylene, monocyclic or polycyclic alkenylene, aromatic or non-aromatic heterocyclic diradical and alicyclic diradical groups, the alkyl, aryl, aralkyl, heterocyclic ring, carbocyclic ring, linear or branched alkylene, monocyclic or polycyclic alkylene, arylene, aralkylene, polyoxyalkylene, linear or branched alkenylene, monocyclic or polycyclic alkenylene, aromatic or non-aromatic heterocyclic diradical and alicyclic diradical being unsubstituted or substituted.

- 2. (original) The polymer of claim 1 which further comprises an additional monomer.
- 3. (original) The polymer of claim 2 wherein the additional monomer is selected from optionally substituted acrylic esters, optionally substituted acrylic acids, optionally substituted methacrylic acids, optionally substituted methacrylic acids, optionally substituted acrylamides, optionally substituted methacrylamides, optionally substituted allyl compounds, optionally substituted styrenes, optionally substituted hydroxystyrene, optionally substituted hydroxyisopropylstyrene, optionally substituted methylstyrene, optionally substituted hydroxyl-α-methylstyrene, optionally substituted hydroxyl-α-methylstyrene, optionally substituted vinyl esters, optionally substituted crotonic acids, optionally substituted crotonic acid esters, optionally substituted maleic anhydride, optionally substituted dialkyl itaconates, optionally substituted monoalkyl or dialkyl esters of maleic acid or fumaric acid, and mixtures thereof.
- 4. (original) The polymer of claim 3 wherein the additional monomer is selected from optionally substituted methacrylic esters and optionally substituted styrenes.

- 5. (original) The polymer of claim 4 wherein the methacrylic esters contains a pendent hydroxyl group.
- 6. (canceled)
- 7. (amended) The polymer of claim [[7]] 1 wherein Y is linear or branched alkylene.
- 8. (previously presented) The polymer of claim 7 wherein each of  $R_{32}$ ,  $R_{34}$ , and  $R_{36}$  are independently hydrogen.
- 9. (canceled)
- 10. (previously presented) The polymer of claim 7 wherein  $R_{24}$  and  $R_{26}$  taken together form  $-(CH_2)_{n1}(O)_{n2}(CH_2)_{n3}-$ .
- 11. (canceled)
- 12. (canceled)
- 13. (amended) A compound having the formula

$$R_{3}$$
 $R_{2}$ 
 $R_{2}$ 
 $R_{3}$ 
 $R_{2}$ 
 $R_{3}$ 
 $R_{3}$ 
 $R_{3}$ 
 $R_{3}$ 
 $R_{3}$ 
 $R_{3}$ 
 $R_{3}$ 
 $R_{3}$ 
 $R_{3}$ 
 $R_{3}$ 

where  $R_1$ ,  $R_2$ , and  $R_3$  are each independently selected from hydrogen or alkyl;  $R_{20}$ ,  $R_{22}$ ,  $R_{24}$ ,  $R_{26}$ ,  $R_{28}$ , and  $R_{30}$  are independently selected from hydrogen, alkyl, aryl, aralkyl, or 5-, 6-, or 7-membered heterocyclic ring containing at least one heteroatom selected from nitrogen, oxygen or sulfur, or  $R_{24}$  and  $R_{26}$  taken together (i) form a direct-bond, (ii) form  $-(CH_2)_{n1}(O)_{n2}(CH_2)_{n3}$ — where n2 is 0 or 1 and n1+n2+n3 = 1 to  $5_7$  or (iii) with the carbon atoms to which they are attached form a carbocyclic ring and  $R_{20}$ ,  $R_{22}$ ,  $R_{28}$  and  $R_{30}$  are as defined above;  $R_{32}$ ,  $R_{34}$ , and  $R_{36}$  are independently selected from hydrogen, alkyl, aryl, aralkyl, or 5-, 6-, or 7-membered heterocyclic ring containing at least one heteroatom selected from nitrogen, oxygen or sulfur; and Y is selected from linear or branched alkylene, monocyclic or polycyclic alkylene, arylene, aralkylene, polyoxyalkylene, linear or branched alkenylene, monocyclic or polycyclic alkylene, arylene, aromatic or non-aromatic heterocyclic diradical and alicyclic diradical groups, the alkyl, aryl, aralkyl, heterocyclic ring, carbocyclic ring, linear or branched alkylene, monocyclic or polycyclic alkylene, monocyclic or polycyclic alkylene,

arylene, aralkylene, polyoxyalkylene, linear or branched alkenylene, monocyclic or polycyclic alkenylene, aromatic or non-aromatic heterocyclic diradical and alicyclic diradical being unsubstituted or substituted.

- 14. (original) The compound of claim 13 wherein Y is linear or branched alkylene.
- 15. (original) The compound of claim 13 wherein each of  $R_{32}$ ,  $R_{34}$ , and  $R_{36}$  are independently hydrogen.
- 16. (original) The compound of claim 13 wherein  $R_{24}$  and  $R_{26}$  taken together form a direct bond.
- 17. (original) The compound of claim 13 wherein  $R_{24}$  and  $R_{26}$  taken together form  $-(CH_2)_{n1}(O)_{n2}(CH_2)_{n3}$ .
- 18. (original) The compound of claim 13 wherein  $R_{24}$  and  $R_{26}$  taken together with the carbon atoms to which they are attached form a carbocyclic ring.
- 19. (amended) An antireflective coating composition comprising:
- a) <u>a</u> the polymer according to claim 1 comprising at least one repeating unit represented by formula (I)

where R<sub>1</sub>, R<sub>2</sub>, and R<sub>3</sub> are each independently selected from hydrogen or alkyl; R<sub>20</sub>, R<sub>22</sub>, R<sub>24</sub>, R<sub>26</sub>, R<sub>28</sub>, and R<sub>30</sub> are independently selected from hydrogen, alkyl, aryl, aralkyl, or 5-6-, or 7-membered heterocyclic ring containing at least one heteroatom selected from nitrogen, oxygen or sulfur, or R<sub>24</sub> and R<sub>26</sub> taken together (i) form a direct bend, (ii) form —(CH<sub>2</sub>)<sub>n1</sub>(O)<sub>n2</sub>(CH<sub>2</sub>)<sub>n3</sub>— where n2 is 0 or 1 and n1+n2+n3 = 1 to 5, or (iii) with the carbon atoms to which they are attached form a carbocyclic ring and R<sub>20</sub>, R<sub>22</sub>, R<sub>28</sub> and R<sub>30</sub> are as defined above; R<sub>32</sub>, R<sub>34</sub>, and R<sub>36</sub> are independently selected from hydrogen, alkyl, aryl, aralkyl, or 5-, 6-, or 7-membered heterocyclic ring containing at least one heteroatom selected from nitrogen, oxygen or sulfur; and Y is selected from linear or branched alkylene, monocyclic or polycyclic alkylene, arylene, aralkylene, polyoxyalkylene, linear or branched alkenylene, monocyclic or polycyclic alkylene, arylene, aralkylene, aromatic or non-aromatic heterocyclic diradical and alicyclic diradical groups, the alkyl, aryl, aralkyl, heterocyclic ring, carbocyclic ring, linear or branched alkylene, monocyclic or polycyclic alkylene, monocyclic or polycyclic

arylene, aralkylene, polyoxyalkylene, linear or branched alkenylene, monocyclic or polycyclic alkenylene, aromatic or non-aromatic heterocyclic diradical and alicyclic diradical being unsubstituted or substituted; and

- b) at least one crosslinking agent.
- 20. (original) The composition of claim 19 wherein for a), the polymer further comprises an additional monomer.
- 21. (original) The composition of claim 20 wherein the additional monomer is selected from optionally substituted acrylic esters, optionally substituted acrylic acids, optionally substituted methacrylic esters, optionally substituted methacrylic acids, optionally substituted acrylamides, optionally substituted methacrylamides, optionally substituted allyl compounds, optionally substituted styrenes, optionally substituted hydroxystyrene, optionally substituted hydroxyisopropylstyrene, optionally substituted methylstyrene, substituted optionally hydroxymethylstyrene. optionally substituted hydroxyl-amethylstyrene, optionally substituted vinyl ethers, optionally substituted vinyl esters, optionally substituted crotonic acids, optionally substituted crotonic acid esters, optionally substituted maleic anhydride, optionally substituted dialkyl itaconates, optionally substituted monoalkyl or dialkyl esters of maleic acid or furnaric acid, and mixtures thereof.
- 22. (original) The composition of claim 20 wherein the additional monomer is selected from optionally substituted methacrylates and optionally substituted styrenes.
- 23. (original) The composition of claim 22 wherein the methacrylic esters contains a pendent hydroxyl group.

24. (canceled)

25. (previously presented) The composition of claim 19 wherein for a), Y is linear or branched alkylene.

CLARIANT

26. (previously presented) The composition of claim 19 wherein for a), each of R<sub>32</sub>, R<sub>34</sub>, and R<sub>36</sub> are independently hydrogen.

27. (previously presented) The composition of claim 19 wherein for a), R<sub>24</sub> and R<sub>26</sub> taken together form a direct bond.

28. (previously presented) The composition of claim 19 wherein for a), R<sub>24</sub> and R<sub>26</sub> taken together form  $-(CH_2)_{n1}(O)_{n2}(CH_2)_{n3}$ .

The composition of claim 19 wherein for a), R<sub>24</sub> and R<sub>26</sub> 29. (previously presented) taken together with the carbon atoms to which they are attached form a carbocyclic ring.

30. (canceled)

31. (original) The composition of claim 19 wherein b) the crosslinking agent is selected from aminoplasts, isocyanates and mixtures thereof.

32. (original) The composition of claim 19 which further comprises at least one additional component selected from solvents, cross-linking catalysts, monomeric dyes, surface leveling agents, adhesion promoters, and antifoaming agents.

33. (original) A method of making the compound of claim 13 comprising reacting a compound of formula (IB)

$$R_{3}$$
 $R_{2}$ 
 $R_{36}$ 
 $R_{32}$ 
 $R_{34}$ 
(IB)

where R<sub>1</sub>, R<sub>2</sub>, and R<sub>3</sub> are each independently selected from hydrogen or alkyl; R<sub>32</sub>, R<sub>34</sub>, and R<sub>36</sub> are independently selected from hydrogen, alkyl, aryl, aralkyl, or 5-, 6-, or 7-membered heterocyclic ring containing at least one heteroatom selected from nitrogen, oxygen or sulfur; and Y is selected from linear or branched alkylene, monocyclic or polycyclic alkylene, arylene, aralkylene, polyoxyalkylene, linear or branched alkenylene, monocyclic or polycyclic alkenylene, aromatic or non-aromatic heterocyclic diradical and alicyclic diradical groups, the alkyl, aryl, aralkyl, heterocyclic ring, carbocyclic ring, linear or branched alkylene, monocyclic or polycyclic alkylene, arylene, aralkylene, polyoxyalkylene, linear or branched alkenylene, monocyclic or polycyclic alkenylene, aromatic or non-aromatic heterocyclic diradical and alicyclic diradical being unsubstituted or substituted,

with a compound of formula (IA)

where  $R_{20}$ ,  $R_{22}$ ,  $R_{24}$ ,  $R_{26}$ ,  $R_{28}$ , and  $R_{30}$  are independently selected from hydrogen, alkyl, aryl, aralkyl, or 5-, 6-, or 7-membered heterocyclic ring containing at least one heteroatom selected from nitrogen, oxygen or sulfur, or  $R_{24}$  and  $R_{26}$  taken together (i) form a direct bond, (ii) form  $-(CH_2)_{n1}(O)_{n2}(CH_2)_{n3}$ — where n2 is 0 or 1 and n1+n2+n3 = 1 to 5, or (iii) with the carbon atoms to which they are attached form a carbocyclic ring and  $R_{20}$ ,  $R_{22}$ ,  $R_{28}$  and  $R_{30}$  are as defined above, the alkyl, aryl, aralkyl, heterocyclic ring, and carbocyclic ring being unsubstituted or substituted,

in the presence of a catalyst and separating the compound of claim 13 from the reaction mixture.

- 34. (original) The method of claim 33 wherein Y is linear or branched alkylene.
- 35. (original) The method of claim 33 wherein each of  $R_{32}$ ,  $R_{34}$ , and  $R_{36}$  are independently hydrogen.
- 36. (original) The method of claim 33 wherein  $R_{24}$  and  $R_{26}$  taken together form a direct bond.

...

- 37. (original) The method of claim 33 wherein  $R_{24}$  and  $R_{26}$  taken together form  $-(CH_2)_{n1}(O)_{n2}(CH_2)_{n3}$ .
- 38. (original) The method of claim 33 wherein  $R_{24}$  and  $R_{26}$  taken together with the carbon atoms to which they are attached form a carbocyclic ring.

Claims 39 to 51 (canceled)